

REMARKS

Claims 1-24 are pending in the present application, were examined, and stand rejected. Claims 25 and 26 are withdrawn from consideration. In response, no claims are amended, no claims are cancelled and no claims are added. Applicants respectfully request reconsideration of pending Claims 1-24 in view of at least the following remarks. Reconsideration and withdrawal of the rejections of record are requested in view of such amendments and the following discussion.

I. Claims Rejected Under 35 U.S.C. §103

The Examiner has rejected Claims 1-24 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,436,665 issued to Ueno et al. ("Ueno") in view of U.S. Patent Application No. 2002/0080878 A1 to Li ("Li"). Applicants respectfully traverse this rejection.

To establish a *prima facie* case of obviousness, the following criteria must be met: (1) there must be some suggestion or motivation to modify the reference or combine the reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art references must teach or suggest all the claim limitations. (MPEP §2142) For the reasons provided below, the Examiner has failed to establish a *prima facie* case of obviousness in view of the references of record.

Regarding Claim 1, Claim 1 recites the following claim features, which are neither taught nor suggested by either Ueno, Li or the references of record:

. . . . wherein the second body of data includes an enhancement layer that captures differences between the viewable video sequence and the source video sequence; and
predicting a subsection of the enhancement layer according to a prediction mode of a plurality of prediction modes, the plurality of prediction modes including prediction using the source video sequence and a combination of a previous enhancement frame and the first body of data. (Emphasis added.)

As correctly pointed out by the Examiner, Ueno does not particularly teach that the second body of data includes one or more enhancement layers as claimed. According to the Examiner:

It is however considered obvious that the high resolution signal generated by the second body of Ueno is equivalent to one or more enhancement layers as claimed. (See, pg. 4, ¶ 2 of the Office Action mailed 08/02/04.)

Applicants respectfully disagree with the Examiner's contention.

As illustrated with reference to FIG. 26 of Ueno, predictive signal generated by predictor 204 is combined with the signal received from inverse DCT 223 to generate a high resolution picture. However, Ueno teaches that the high resolution signal, referred to by the Examiner with reference to FIG. 1 and stored in frame 227, is generated as follows:

The adder 24 adds inverse DCT data and a predictive signal together to produce a high resolution decoded signal. The other input terminal of the adder 24 is connected to the output terminal of the predictor and prediction-mode decision unit 104, and the output terminal of the adder 24 is connected to a prediction circuit 134 and 131 (FIG. 4 or 5) of the predictor and prediction-mode decision unit 104 via a frame memory 27 for storing a high-resolution local decoded signal. (col. 8, lines 14-23.) (Emphasis added.)

As further described by Ueno with reference to FIG. 1, referred to by the Examiner:

When a block of input data (input picture signal) is input to the predictor and prediction-mode decision unit 104, signals for various types of inter-frame prediction (by referring a picture in the frame memory 27) from a high-resolution picture, intra-frame prediction, or prediction from a low-resolution picture (by referring a picture obtained by up-sampling a picture in the frame memory in the local decoder 33 of the existing system by up-sampling circuit 35) considered as prediction candidates are produced, and a differences between these signals and the input signal are obtained. A prediction mode to minimize the difference is selected based on a certain evaluation criteria. (col. 8, line 59 - col. 9, line 3.) (Emphasis added.)

The above-described passage provides Ueno's explanation for generating the predictive signal. As such, Applicants respectfully submit that the high resolution signal, referred to by the Examiner, which is used in combination with the low resolution signal and the input picture to generate the predictive signal, is not an enhancement layer, as recited by Claims 1 and 9.

To render the above-recited features of Claims 1 and 9 obvious, the Examiner cites Li, which according to the Examiner:

teaches the conventional enhancement layer generations and that high resolution images are achieved through the enhancement layer coding. (See, enhancement layer of FIG. 1, pg. 1, section [0008], pg. 2, section [0012].)

According to the Examiner, in view of such teachings of Li, it is considered obvious that the second unit (100, 101, 12, 17-24, 27, 104 of FIG. 1) of Ueno that generates a second body of data being sufficient to enhance the quality of the viewable video sequence generated from the

first body of data provides the same enhancement layer coding as claimed. (See, pp. 4 and 5 of Office Action mailed 08/02/04.)

Assuming, arguendo, that the above-cited statement is true, Applicants respectfully submit that the Examiner's argument illustrates that the high resolution signal is not an enhancement layer, but in fact represents a signal that could be combined with an enhancement layer, are recited by Claims 1 and 9.

As illustrated with reference to FIGS. 1 and 26 of Ueno, the predictive signal is not stored within frame memory 27. As indicated by the cited passages above, frame memory 27 stores a high resolution signal, which may be used in combination with the low resolution signal and the input picture signal to generate the prediction signal. Accordingly, assuming, arguendo, that the prediction signal, as taught by Ueno, represents an enhancement layer, the prediction signal is not stored within frame memory 27, and hence, cannot be used in combination with the first body of data to predict the enhancement layer, as recited by Claims 1 and 9.

In other words, as described with reference to the decoding apparatus illustrated in FIG. 26 of Ueno:

The predictor 204 uses the high-resolution picture stored in the frame memories 227 and the low-resolution picture input from the up-sampling circuit 216 as reference pictures for forming a predictive signal. A method for forming a predictive signal is basically similar to the predictor 104 shown in FIG. 1. (col. 12, lines 48-53.) (Emphasis added.)

Accordingly, Applicants respectfully submit that assuming, arguendo, that the prediction signal generated by Ueno represents an enhancement layer, this prediction signal is never stored, and therefore, cannot be used in combination with the base layer to predict an enhancement layer, as recited by Claims 1 and 9.

According to the Examiner, one skilled in the art would have no difficulty in providing the enhancement layer coding, as taught by Li, for this system as shown in FIG. 1 of Ueno. (See, pg. 5 of Office Action mailed 08/02/04.) Applicants respectfully disagree with the Examiner's contention.

Furthermore, even if Ueno could be modified according to Li, such modification would fail to teach the prediction of a subsection of the enhancement layer using the source video sequence in a combination with a previous enhancement frame and the first body of data, since

neither Li nor Ueno provides any teachings with regards to storing of an enhancement layer to predict a subsequent enhancement layer.

Consequently, Applicants respectfully submit that the Examiner fails to establish a *prima facie* case of obviousness of Claims 1 and 9 over Ueno in view of Li since the combination fails to teach or suggest each of the above-described features of Claims 1 and 9. Accordingly, Claims 1 and 9 are patentable over the combination of Ueno in view of Li. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claims 1 and 9.

Regarding Claims 2-8, Claims 2-8 depend from Claim 1 and therefore recite the patentable claim features of Claim 1, as described above. Accordingly, Claims 2-8, based on their dependency from Claim 1, are also patentable over the combination of Ueno in view of Li. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claims 2-8.

Regarding Claims 10-16, Claims 10-16 depend from Claim 9 and therefore recite the patentable claim features of Claim 9, as described above. Accordingly, Claims 10-16, based on their dependency from Claim 9, are also patentable over the combination of Ueno in view of Li. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claims 10-16.

Regarding Claim 17, Claim 17 recites the following claim features, which are neither taught nor suggested by either Ueno, Li or the references of record:

... wherein the second body of data includes an enhancement layer that captures differences between the viewable video sequence and the source video sequence; and
a third unit to predict a subsection of the enhancement layer according to a prediction mode of a plurality of prediction modes, the plurality of prediction modes including prediction using the source video sequence and a combination of a previous enhancement frame and the first body of data. (Emphasis added.)

Applicants respectfully submit that for at least the reasons described with regards to Claims 1 and 9 that Ueno fails to teach or suggest a prediction enhancement layer based on a combination of a previous enhancement frame and the first body of data, as recited by Claim 17, since Ueno fails to teach storage of the predictive signal (assuming, arguendo, that the predictive signal is an enhancement layer) and only stores a high resolution signal and a low resolution

signal, which are alternately combined to form the predictive signal. (See, col. 8, lines 59 - col. 9, line 3.)

Accordingly, even if one skilled in the art would combine the teachings of Ueno in view of Li, such teachings would still fail to teach or suggest the prediction of a subsection of the enhancement layer based on a combination of a previous enhancement frame and the first body of data, as recited by Claim 17. Accordingly, Applicants respectfully submit that the Examiner fails to establish a *prima facie* case of obviousness of Claim 17 since the combination of Ueno in view of Li fails to teach or suggest each of the above-recited features of Claim 17.

Therefore, Claim 17 is patentable over the combination of Ueno in view of Li. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claim 17.

Regarding Claims 18-24, Claims 18-24 depend from Claim 17 and therefore recite the patentable claim features of Claim 17, as described above. Accordingly, Claims 18-24, based on their dependency from Claim 17, are also patentable over the combination of Ueno in view of Li. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §103(a) rejection of Claims 18-24.

CONCLUSION

In view of the foregoing, it is submitted that Claims 1-24 patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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By: _____

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CERTIFICATE OF MAILING:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

October 1, 2004

Marilyn Bass

October 1, 2004